

REMARKS

Claims 1-27 are presently pending. The Examiner has indicated that claims 11 and 12 are allowed and that claims 7, 8, 20 and 24-26 would be allowable if rewritten to include all of the limitations of the claims from which they depend.

Applicants respectfully request reconsideration of the application in view of the remarks appearing below, which Applicants believe demonstrate that the application is in condition for allowance.

Rejection under 35 U.S.C. § 103

The Examiner has rejected claims 1-6, 9, 10, 13-19, 21-23 and 27 under 35 U.S.C. § 103 as being obvious in view of the Briggs patent and the Moura Bordado et al. publication, both of which are addressed in detail in the prior Amendment filed on November 24, 2004. More particularly, the Examiner asserts that Briggs discloses all of the limitations of these claims except for: (1) the testing of cork stoppers for the presence of TCA; (2) an apparatus for accomplishing the same and (3) particular features of the apparatus. The Examiner then states that Moura Bordado et al. discloses the testing of cork stoppers for the presence of TCA and asserts that it would have been obvious to a person having ordinary skill in the art at the time of the invention, in view of the Moura Bordado et al. publication, to test cork stoppers and provide a cork stopper testing apparatus or method as contemplated by the rejected claims. Applicants respectfully disagree.

The Briggs/Moura Bordado et al. Combination Lacks a Sensor Operatively Configured to Detect an Analyte that Causes Cork Taint in Wine

First, Applicants desire it to be clear that Moura Bordado et al. do not disclose or suggest the testing of cork stoppers for the presence of TCA by sniff testing the stoppers themselves. Rather, Moura Bordado et al. explicitly state at page 11, lines 23-25 that cork samples were analyzed by immersing the stoppers individually in 100 mL of white wine for a period of 24 hours, after which the individual wine samples were subject to an olfactory assessment (hereinafter "sniff test") by a minimum of three human assessors. In this sniff test, olfactory

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characteristics of the wine samples were compared against one another. It is noted that multiple human assessors are required to account for inaccuracies in, and subjectivity of, human sensory assessment. The slow and tedious human-based method of testing cork stoppers disclosed by Moura Bordado et al. is vastly different from the present invention that can efficiently, objectively and quickly test every cork stopper in virtually any number of batches without the need to deal with the subjectivity and variation of sensory perception that accompanies human assessment.

Applicants point out this distinction because any combination of the Briggs and Moura Bordado et al. references fails to disclose a sensor operatively configured to detect the presence of an analyte responsible for cork taint in wine as required by all of the rejected claims. Applicants respectfully assert that such sensors were not so well-known prior to the present invention that the Examiner can simply assert that such sensors are indeed well-known without providing evidence. Consequently, Applicants believe that the Examiner must provide evidence of such a sensor in order to present a *prima facie* case of obviousness.

Because any combination of the Briggs and Moura Bordado et al. references lacks the required sensor, the rejected claims cannot be rendered obvious by this combination.

As discussed below in detail, the Moura Bordado et al. method of reducing the level of TCA in cork stoppers is essentially yet another solution for dealing with cork taint issues in the absence of any viable technology for testing each and every cork stopper that is intended for use in bottling wine. Generally, the Moura Bordado et al. method provides a means for treating cork stoppers en masse, regardless of whether or not the stoppers actually contain TCA. In general, the primary conventional method of providing quality control for cork stoppers relative to cork taint is to take a statistical sample from each batch of stoppers or cork sheets used to make stoppers. If the sample is tainted, the entire batch is identified as being tainted, regardless of whether or not in fact the batch contains untainted stoppers or sheets. The Moura Bordado et al. method simply provides a way of treating the batches identified as being tainted. The conventional statistical sampling method, even in combination with the Moura Bordado et al. removal method, does not address whatsoever the underlying problem that, except for the present invention, no

one has yet devised an efficient and fast method of testing every single cork stopper desired to be used.

The Invention of Rejected Claims 1-6, 9, 10, 13-19, 21-23 and 27 Satisfies a Long Felt but Unsolved Need to Test Every Cork Stopper Intended for Use

As the Examiner knows, it is the policy of the U.S. Patent and Trademark Office to follow the obviousness analysis laid out in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), including the evaluation of secondary considerations of nonobviousness, which include long-felt but unresolved needs. MPEP § 2141. Even when it appears that the prior art suggests that a claimed invention may be obvious, one or more secondary considerations of nonobviousness may support a conclusion that the invention is in fact not obvious.

In the present case, the invention recited in the rejected claims indeed satisfies a long felt but unsolved need in the wine industry to test each and every cork stopper that is intended to be used to bottle wine. In particular, e.g., claim 1 as previously amended includes the limitations of moving, in seriatim, first and second cork stoppers to a first position and also moving first and second sensors to a second position wherein the sensors are used to determine whether or not, respectively, the first and second cork stoppers contain an analyte that causes cork taint in wine. As discussed below, it is the cycling of the first and second sensors that allows the present invention to test each and every cork stopper that is desired to be used to bottle wine. In fact, claim 2, which was also previously amended, particularly captures the concept of testing each and every cork stopper in a plurality of batches of stoppers, a feat that has not yet been achieved in the wine industry despite the fact that automated sensing technologies has existed in other industries for many years.

As described below in detail, despite all of the sophisticated testing techniques utilized for testing cork and cork stoppers for the presence of TCA, to the best of Applicants' knowledge, all still rely on statistical sampling, which by its very nature permits at least some untainted cork or cork stoppers to be identified as unsuitable for use and, therefore, must be wasted. The testing of all cork stoppers destined for use would combat such waste. Applicants assert that this

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secondary consideration of nonobviousness is so strong that the U.S. Patent and Trademark Office should allow Applicants to protect their invention, which is directed specifically to the wine industry, despite the fact that other industries may implement systems and methods that utilize a similar type of equipment, but for much different uses.

As mentioned above and as discussed in the prior Amendment filed on November 11, 2004, the best practices conventionally used to provide the wine industry with quality control as it relates to inhibiting the occurrence of cork taint in wine involve the random statistical sampling of batches in which only a portion of the cork stoppers or bulk cork is tested. Typically, this involves random removal of a few stoppers, or "test stoppers," from each batch. The test stoppers are then relatively painstakingly tested using conventional sniff testing or involved chemical analyses, such as gas chromatography, mass spectroscopy and solid phase microextraction (SPME). Conventional sniff testing is often performed by highly trained human sniffers.

In order to illustrate the recent history of quality control in connection with cork taint of wine, Applicants have attached hereto as Exhibits A-E a number of publications widely available, e.g., on the World Wide Web. Exhibit A is a printout of a Web page of Scott Laboratories, a manufacturer of equipment, supplier of cork and provider of an array of services to the wine making industry, among other industries. Exhibit A indicates that Scott Laboratories was the first cork supplier to institute sniff testing for TCA. Scott Laboratories first instituted TCA sniff testing in 1984.

Exhibit B is an article from the June 1996 issue of the publication Wine Business Monthly that described the state-of-the-art quality-control testing implemented for cork stoppers in the wine industry at the time. As the article explains, such testing included human sniff testing of only random samples, i.e., small numbers, of cork stoppers and human sniff and taste testing of wine subjected to sampled stoppers. These slow, incomplete (only a small fraction actually tested), subjective, destructive (the sampled cork cannot be reused) and painstaking testing techniques are far removed from the claimed invention, which, by virtue of its claimed multiple sensor arrangement and multiple sensor method is fast, complete (every cork stopper

may be tested), objective, nondestructive and straightforward. In other words, the claimed invention is a vast and much needed improvement over the testing techniques implemented in 1996. Despite the passage of 12 years, i.e., from 1984 to 1996, since sniff testing was implemented, no one implemented a system and method able to test each and every cork stopper destined for use.

Next, Exhibit C is a printout of Scott Laboratories "A Commitment to Quality" brochure available at www.scottlaboratories.com/info-center/pdf/CorkQualityCommitment.pdf that is accessible from the Web page at www.scottlaboratories.com/info-center/faq-packaging.asp, which is included as Exhibit D. As seen from Exhibit D, access to the "A Commitment to Quality" brochure is accessible from the question "What does Scott Labs do to prevent TCA (cork taint)?" on the Web page.

As seen in Exhibit C, the "A Commitment to Quality" brochure, which was downloaded and printed on April 7, 2005, describes the (presumably) state-of-the-art practices that Scott Laboratories presently implements as its quality control measures relative to TCA testing of cork. The brochure appears to indicate that SPME, a technique apparently invented in the early 1990s (see Exhibit E), represents the state-of-the-art in TCA testing in 2005. Applicants particularly note that the brochure of Exhibit C indicates that, despite the use of the sophisticated SPME testing method, testing still involves random statistical sampling. Consequently, even in today's state-of-the-art TCA testing, there remains no practical way to test each and every cork stopper effectively. In sharp contrast, the claimed invention, which, again, utilizes a multi-sensor arrangement that is unique to the wine industry, allows for the testing of all cork stoppers slated for use. This is a feat that the wine industry in all of its years of existence has not been able to achieve.

Applicants particularly note that in the 21 years (1984 to 2005) since Scott Laboratories was the first to implement sniff testing for TCA, it appears that no one, except for Applicants, has designed any system and method that can quickly, completely, objectively, nondestructively and easily test all cork stoppers that are intended to be used to bottle wine. This is so, despite the

fact that references such as the Briggs patent exist and are available to appropriately skilled artisans.

In view of the foregoing, as of 2005 there remains a long felt, yet unsolved, need for a system and method for testing cork stoppers for the presence of an analyte that causes taint in wine in each and every cork stopper intended to be used to cork bottles of wine so that uncontaminated cork stoppers present in batches designated as tainted using conventional random sampling can be used. The system and method claimed in the rejected claims satisfies this long felt need.

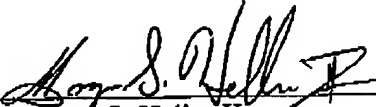
For at least the foregoing reasons, Applicants respectfully request that the Examiner withdraw the present obviousness-type rejection of claims 1-6, 9, 10, 13-19, 21-23 and 27.

CONCLUSION

In view of the foregoing, Applicants submit that claims 1-27, as previously amended, are in condition for allowance. Therefore, prompt issuance of a Notice of Allowance is respectfully solicited. If any issues remain, the Examiner is encouraged to call the undersigned attorney at the number listed below.

Respectfully submitted,

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Attachments
Exhibits A-E

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